



15 February 2016

### **Icewine #1 Core Evaluation Update – Thermal Maturity Confirms Icewine Sweetspot**

88 Energy Limited (“88 Energy”, “the Company”, “Operator”) (ASX, AIM: 88E) is pleased to provide the following update on the evaluation of the core over the HRZ interval from the recently drilled Icewine#1 exploration well.

#### **Highlights**

- **Final Thermal Maturity Analysis Indicates Icewine#1 in Crossover Between Volatile Oil and Condensate Window – Pre Drill Predictions Proven to be Accurate**
- **Majority of 272,000 Acres Mapped to be in Thermal Maturity Sweetspot**
  - **Resultant Low Viscosity Vapour Phase Hydrocarbons Modelled to Flow at Material Rate Given Porosity and Permeability Results**
- **Early Observations on Rock Mechanics and Fractability are Encouraging: Analogous to Matrix of Conditions Found in Haynesville and Marcellus Shale Plays**
- **Data Confirm that Icewine #1 Cored a New Resource Play Type, as Forecast by Joint Venture Partner**
- **Updated Independent Resource Report Underway**

#### **Overview**

Vitrinite reflectance analysis grades thermal maturity by measuring the amount of light reflected from organic matter. This analysis was recently completed, and confirmed that the core from the Icewine#1 well is in the crossover between the volatile oil and wet gas condensate thermal maturity window. This is the ideal thermal maturity environment, which is coincident with vapour phase hydrocarbons with high liquid to gas ratio. This enables higher flow rates due to low viscosity whilst also maximising liquids production and driving better economics.

The results from the vitrinite reflectance analysis are consistent with the rock eval pyrolysis data from the core and the geochemical analysis of the gases measured in the drilling mud whilst drilling through the HRZ interval.

Extensive mapping of the thermal maturity fairway, integrating the data now available from Icewine#1, indicates that a majority of the Project Icewine acreage is within the sweetspot and validates the leasing strategy and decision made by the Joint Venture in November 2015.

An update to the Independent Resource Report, released to the market on 19<sup>th</sup> January 2015, is now underway, incorporating the larger acreage position and the results from the Icewine#1 well.

#### **Forward Plan**

Evaluation of the core is ongoing, with results expected on key variables over the coming weeks, including:

- Rock mechanics and stress regime
- Finalisation of integrated petrophysical analyses
- Internal characterisation of the resource “prize” potential
- Completion of Independent Resource Report



Seismic planning is at an advanced stage with acquisition planned to commence in March 2016, subject to final negotiations with vendors and approval of the proposed program by Bank of America.

Managing Director of 88 Energy Limited, Dave Wall commented: *"Thermal maturity based on vitrinite reflectance analysis has confirmed that Icewine#1 is in the predicted sweetspot where the volatile oil window meets the gas condensate window. This is consistent with the earlier interpretation announced from geochemical analysis of gases in drilling mud whilst drilling through the HRZ as well as rock evaluation work on the core.*

*The level of accuracy between the pre-drill predictions by our Joint Venture partner, Burgundy Xploration, and the actual results from the core evaluation is nothing short of astounding.*

*The Joint Venture now looks forward to the challenge of designing the optimal extraction method for the potentially very large resource in the HRZ shale play, and early observations on this front are encouraging.*

*The HRZ is a new resource play and will not be without its own unique peculiarities; however, given the size of the potential prize, we are confident that substantial interest will be garnered to support the next phase of the project, which will include the drilling of a horizontal well with a multi-stage fracture stimulation.*

*We look forward to providing continued newsflow as to progress at Project Icewine over the coming weeks and months."*

Yours faithfully

Dave Wall  
Managing Director  
88 Energy Ltd



## Project Icewine Highlights

In November 2014, the Company entered into a binding agreement with Burgundy Xploration (**BEX**) to acquire a significant working interest (87.5%, reducing to 78% on spud of the first well on the project) in a large acreage position on a multiple objective, liquids rich exploration opportunity onshore Alaska, North America, referred to as Project Icewine. In November 2015, the gross acreage position was expanded by 174,240 acres (to be awarded in due process by the State of Alaska).

Subject to final payment on the expanded acreage, 88 Energy will have a 272,422 gross contiguous acre position with 212,489 acres net to the Company. The Project is located on an all year operational access road with both conventional and unconventional oil potential. The primary term for the State leases is 10 years with no mandatory relinquishment and a low 16.5% royalty.

The unconventional oil play will be evaluated based on core obtained in the recently completed (December 2015) Icewine #1 exploration well.

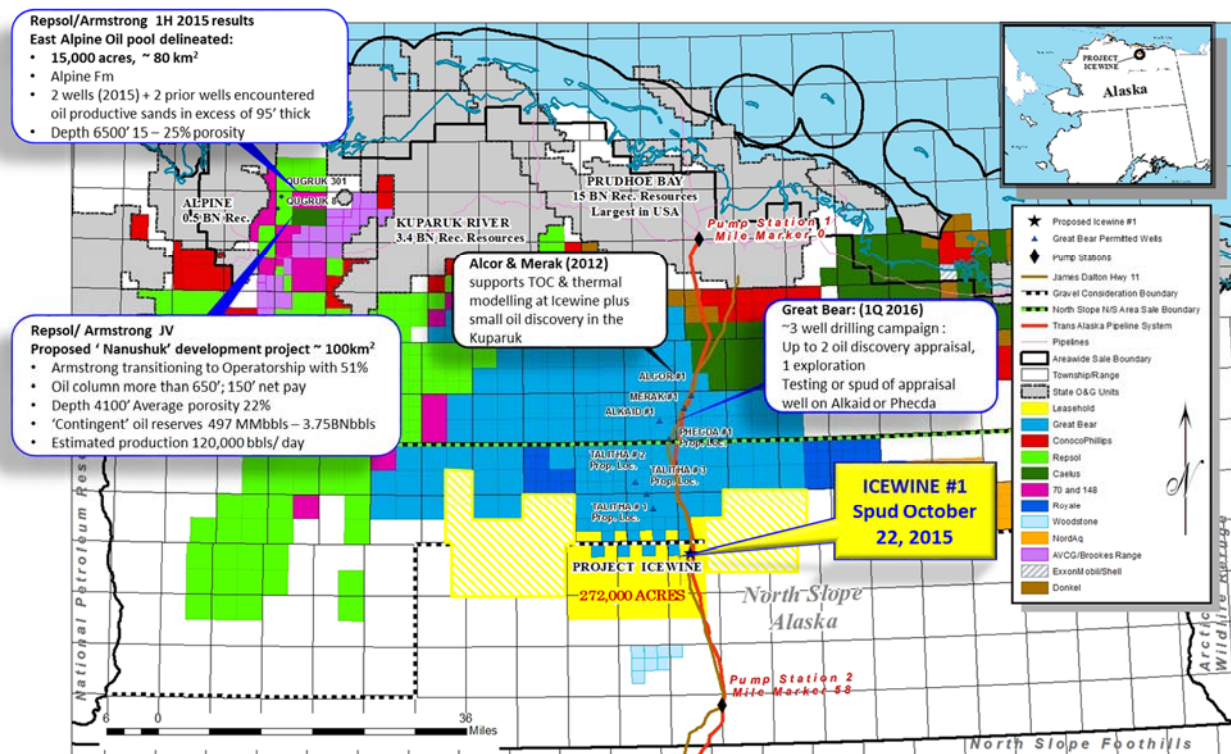


Figure 1: Project Icewine Location

Generous exploration incentives are provided by the State of Alaska with up to 85% of exploration expenditure in 2015 cash refundable, dropping to 75% until mid 2016 and thereafter 35%.

The primary objective is an untested, unconventional liquids-rich shale play in a prolific source rock, the HRZ shale (Brookian Sequence), that co-sourced the largest oil field in North America; the giant Prudhoe Bay Oil Field Complex. Internal modelling and analysis indicates that Project Icewine is located in a high liquids vapour phase sweetspot analogous to those encountered in other Tier 1 shale plays e.g. the Eagle Ford, Texas.



Conventional play potential can be found at Project Icewine within the same Brookian petroleum system and shallow to the HRZ shale and includes high porosity channel and deep water turbiditic sands. The Brookian conventional play is proven on the North Slope; the USGS (2013) estimate the remaining oil potential to be 2.1 billion barrels just within the Brookian sequence. Additional conventional potential exists in the deeper Kuparuk sands and the Ivashuk Formation.

Drilling in (2012), on the adjacent acreage to the north, confirmed that the HRZ shales, along with the underlying Kingak & Shublik shales, were all within the oil window which is extremely encouraging for the unconventional potential at Project Icewine. In addition, a conventional oil discovery was reported in the Kuparuk sandstones.

A Prospective Resources Report by DeGolyer and MacNaughton, was commissioned by 88 Energy to evaluate the unconventional resource potential of Project Icewine in early December 2014 and was released to the market on 19 January 2015.

**About 88 Energy:** 88 Energy has a 78% working interest and operatorship in ~272,000 acres (~174,000 acres subject to formal award) onshore the prolific North Slope of Alaska ("Project Icewine"). The North Slope is the host for the 15 billion barrel Prudhoe Bay oilfield complex, the largest conventional oil pool in North America. The Company, with its Joint Venture partner Burgundy Xploration, has identified three highly prospective play types that are likely to exist on the Project Icewine acreage – two conventional and one unconventional. The large resource potential of Project Icewine was independently verified by leading international petroleum resource consultant DeGolyer and MacNaughton. In addition to the interpreted high prospectivity, the project is strategically located on a year-round operational access road and only 35 miles south of Pump Station 1 where Prudhoe Bay feeds into the TransAlaska Pipeline System. The Company plans to progress drilling and seismic acquisition in the near term to take advantage of the globally unique fiscal system in Alaska, which allows for up to 85% of CY2015 exploration expenditure to be rebated in cash.

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